Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for generating an index in a disk drive comprising the steps of:

providing a motor having a plurality of commutation states, wherein changes in commutation states are controlled by an FCOM signal having FCOM pulses;

measuring times between FCOM pulses to account for mechanical tolerances in the motor; and,

selecting a spin motor index associated with a circumferential position about the motor based upon the measured times between FCOM pulses using a predetermined criteria,

<u>wherein a predetermined number of FCOM pulses are associated with one revolution of the motor and measurements are taken between the predetermined number of FCOM pulses associated with one revolution of the motor</u>.

2. (original) The method of claim 1, wherein the predetermined criteria used to select the spin motor index is the shortest measured time between FCOM pulses.

3. (original) The method of claim 1, wherein the predetermined criteria used to select the spin motor index is the longest measured time between FCOM pulses.

4. (original) The method of claim 1, wherein the predetermined criteria used to select the spin motor index is the most unique measured time between FCOM pulses.

5. (original) The method of claim 1, wherein the FCOM signal is delivered to a processor in the disk drive to measure times between FCOM pulses.

6. (original) The method of claim 1, wherein the FCOM signal is delivered to a digital counter to measure times between FCOM pulses.

7. (cancelled)

8. (currently amended) The method of claim [[7]] 1, further comprising the step of:

monitoring the spin motor index using the predetermined number of FCOM pulses per revolution.

9. (original) The method of claim 8, wherein a counter is used to monitor the spin motor index.

10. (original) The method of claim 1, further comprising the step of:

monitoring the spin motor index.

11. (original) The method of claim 1, further comprising the step of:

correlating the spin motor index to a circumferential position about a disk surface in the disk drive.

12. (original) The method of claim 11, wherein the spin motor index is used in connection with writing servo information onto the disk surface.

13. (original) The method of claim 12, wherein the servo information includes a servo sector index which is positioned relative to the spin motor index.

14. (original) The method of claim 13, wherein the servo sector index and the spin motor index are at matching locations.

15. (original) The method of claim 1, further comprising the step of:

correlating the spin motor index to a servo sector index written on a disk surface in the disk drive.

16. (original) The method of claim 15, wherein the step of correlating the spin motor index to the servo sector index includes the step of determining a circumferential distance between the spin motor index and the servo sector index.

17. (original) The method of claim 16, further comprising the step of:

storing the circumferential distance between the spin motor index and the servo sector index in memory.

18. (original) The method of claim 1, further comprising the steps of:

providing a disk surface having a landing zone thereon;

providing a transducer operable to be loaded over and unloaded from the disk surface;

providing a ramp for parking the transducer when unloaded from the disk surface;

using the servo index when loading the transducer over the disk surface from the ramp.

19. (original) The method of claim 18, wherein the landing zone does not extend around the entire circumference of the disk surface.

20. (original) The method of claim 1, wherein the times between FCOM pulses are measured using an electronic device having a clock frequency greater than a predetermined value.

21. (currently amended) A disk drive comprising:

a motor having a rotor and a stator, wherein the rotor is rotatable relative to the stator and wherein the motor has a plurality of commutation states;

circuitry for controlling changes in the commutation states of the motor by an FCOM signal having FCOM pulses;

circuitry for measuring times between FCOM pulses to account for mechanical tolerances in the motor; and,

circuitry for selecting a spin motor index associated with a circumferential position about the motor based upon the measured times between FCOM pulses using a predetermined criteria,

<u>wherein a predetermined number of FCOM pulses are associated with one revolution of the motor and measurements are taken between the predetermined number of FCOM pulses associated with one revolution of the motor</u>.

22. (original) The disk drive of claim 21, wherein the stator includes stator pole pieces and wherein times between FCOM pulses vary based upon mechanical tolerances in constructing the stator pole pieces.

23. (original) The disk drive of claim 21, wherein the rotor includes a ring magnet having segments of alternating magnetic fields and wherein times between FCOM pulses vary based upon mechanical tolerances in constructing the segments of alternating magnetic fields in the ring magnet.

24. (original) The disk drive of claim 21, wherein the predetermined criteria used to select the spin motor index is selected from the group consisting of: the shortest

measured time between FCOM pulses; the longest measured time between FCOM pulses; and, the most unique measured time between FCOM pulses.

25. (original) The disk drive of claim 21, wherein the circuitry used to measure times between FCOM pulses is selected from the group consisting of: a processor in the disk drive; and, a digital counter.

26. (cancelled)

27. (currently amended) The disk drive of claim [[26]] <u>21</u>, further comprising:

circuitry for monitoring the spin motor index using the predetermined number of FCOM pulses per revolution.

28. (original) The disk drive of claim 27, wherein a counter is used to monitor the spin motor index.

29. (original) The disk drive of claim 21, further comprising:

a disk surface fixedly connected to the rotor; and,

circuitry for correlating the spin motor index to a circumferential position about the disk surface.

30. (currently amended) The disk drive of claim 29, further comprising:

a transducer for writing a servo sector index onto the disk surface, wherein the transducer writes the servo sector index onto the disk surface relative to the ~~servo sector~~ spin motor index.

31. (original) The disk drive of claim 30, wherein the servo sector index and the spin motor index are at matching locations.

32. (original) The disk drive of claim 21, further comprising:

a disk surface fixedly connected to the rotor, the disk surface having a landing zone thereon;

a transducer operable to be loaded over and unloaded from the disk surface;

a ramp for parking the transducer when unloaded from the disk surface, wherein the spin motor index is used when loading the transducer over the disk surface from the ramp.

33. (currently amended) The disk drive of ~~Claim~~ claim 32, wherein the landing zone does not extend around the entire circumference of the disk surface.

34. (original) A method for generating an index in a disk drive comprising the steps of:

providing a motor having a rotor and a stator, wherein the rotor has a disk surface fixedly connected thereto and wherein the rotor is rotatable relative to the stator, the disk surface having a servo sector index stored thereon; and,

deriving a circumferential position about the motor in the absence of reading said servo sector index stored on the disk surface, wherein said circumferential position is derived using mechanical tolerances in constructing at least one of the rotor and the stator.

35. (new) A method for generating an index in a disk drive comprising the steps of:

providing a motor having a plurality of commutation states, wherein changes in commutation states are controlled by an FCOM signal having FCOM pulses;

measuring times between FCOM pulses to account for mechanical tolerances in the motor; and,

selecting a spin motor index associated with a circumferential position about the motor based upon the measured times between FCOM pulses using a predetermined criteria;

providing a disk surface having a landing zone thereon;

providing a transducer operable to be loaded over and unloaded from the disk surface;

providing a ramp for parking the transducer when unloaded from the disk surface;

using the servo index when loading the transducer over the disk surface from the ramp,

wherein the landing zone does not extend around the entire circumference of the disk surface.

36. (new) A disk drive comprising:

a motor having a rotor and a stator, wherein the rotor is rotatable relative to the stator and wherein the motor has a plurality of commutation states;

circuitry for controlling changes in the commutation states of the motor by an FCOM signal having FCOM pulses;

circuitry for measuring times between FCOM pulses to account for mechanical tolerances in the motor; and,

circuitry for selecting a spin motor index associated with a circumferential position about the motor based upon the measured times between FCOM pulses using a predetermined criteria;

a disk surface fixedly connected to the rotor, the disk surface having a landing zone thereon;

a transducer operable to be loaded over and unloaded from the disk surface;

a ramp for parking the transducer when unloaded from the disk surface, wherein the spin motor index is used when loading the transducer over the disk surface from the ramp,

wherein the landing zone does not extend around the entire circumference of the disk surface.

37. (new) The method of claim 34, wherein said circumferential position is derived using mechanical tolerances in constructing the rotor.

38. (new) The method of claim 34, wherein said circumferential position is derived using mechanical tolerances in constructing the stator.

39. (new) The method of claim 34, wherein said circumferential position is derived using mechanical tolerances in constructing both the rotor and the stator.